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Modular Content in Medical Affairs: The Foundation of Omnichannel Engagement

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Executive summary

Healthcare professionals (HCPs) have been under increased time pressure since the COVID-19 pandemic began. With a myriad of economic and healthcare system factors, due to converge in 2023, the HCP working environment may be further affected.[1] With less time for engaging with pharmaceutical organizations and keeping abreast of rapid and often complex scientific advances, HCPs are seeking credible scientific and medical materials that will help them remain informed.

Most healthcare professionals consult multiple medical information sources, often through digital channels, to inform a clinical decision.[2] In 2022, an Elsevier survey of 1,778 physicians identified credibility, up-to-date information, and ease of navigation or searching as key factors that HCPs use to select content.[3]

A great deal of medical content is recreated for different channels, regions, and purposes, all of which may need to be updated with the findings of clinical trials and other data. Recreating and re-reviewing content for multiple channels and ensuring that the information remains consistent therein can be difficult and wastes time and resources.

In recent years, many pharmaceutical companies have focused on meeting customer preferences and expectations through omnichannel engagement, often with commercial and marketing teams leading the way. However, 2023 will likely witness HCP engagement teams within pharmaceutical companies under an increased impetus to provide a user journey that does not differentiate between medical and commercial components. Instead, the user journey is driven by HCPs' desire for more engagement with medical and scientific materials.

This white paper explores how digital, medical, and scientific content can be created and deployed to reach HCPs, and other stakeholders, such as payers and patients, through their preferred channels as and when they are open to engaging or searching for it. Improving the efficient and accurate output of medical and scientific content using a modular content approach will be key to meeting this goal.

Defining the opportunity

Rather than creating multiple versions of the same deliverable, digital modular content can be created centrally. Content creation, review, and dissemination can be streamlined, reducing bottlenecks and delays. Components such as scientific core messages, graphs, and illustrations are crafted, reviewed, and approved centrally and can be tied together into various content modules or templates, submitted for Medical Legal Review approval, and made available for local adaptation through a central library.

Modular content is a central component that can be used across multiple channels as part of an omnichannel engagement package. Scalable, adaptable, and reusable modular content also allows consistent updates to cascade through various materials and channels such as chats, apps, and physician networks. Additionally, different depths of content can be developed and customized. For example, the order of modules or blocks within a template may be prioritized according to audience interests and needs.

1 Sarah Rickman, VP Thought Leadership & Marketing, IQVIA, "Nine for 2023, part one: a reflection on inflection," and "Nine for 2023, part three: thriving or surviving?" Pharmaphorum.com, 2023
2 Sermo HCP Sentiment Study Part 7, "Understand how COVID-19 is impacting the medical community," 2020
3 Pharma & Life Sciences Solutions Team, Elsevier, White Paper, "Physicians are online – Here's why," 2022

Executing the opportunity

When implementing modular content, there are multiple challenges to consider, including the lack of an integrated platform for creating scientific and medical modular content that caters to the needs of Medical Affairs. Careful content planning is needed to identify the required deliverables and key content pieces within them. A collaborative approach between internal Medical Affairs functions (such as medical information, medical education, and medical science liaisons [MSLs]) and external stakeholders (such as marketing or commercial) is advisable to ensure a successful enterprise-wide content plan that aligns with objectives from the beginning. Foresight is essential to avoid copyright issues, and understanding regional needs is important to account for differences.

A well-organized digital asset management system is essential to develop omnichannel capabilities and power content automation, provided and measured accordingly. A central repository for housing modular materials can allow users to filter and find global content to reuse locally or within a particular channel. Having a standard approach, a clear taxonomy, and standard metadata fields can help users find sources.

Content and channels must work together and consider audience insights to serve impactful and valued information to HCPs. Understanding the audience and focusing on customers' needs is key. Multiple data sources, such as MSL call notes, medical information, scientific congresses, or social listening, can help generate meaningful insights for the organization that will inform modular content creation.

Aligning teams and change management

Collaboration between various stakeholders within the content creation process, such as ethics and compliance, is essential at an early stage to create efficient processes and procedures and an effective content strategy. Change management and buy-in to modular content can be achieved by showing the value of locally adapting global materials to enable personalized external engagement. Additionally, commercial and brand insight teams can use scientifically insightful elements or modules, such as graphs or tables, from presentations created by medical teams.

The way forward

The way the pharmaceutical industry engages with HCPs is evolving. Current aspirations include a streamlined customer experience with no distinction between medical and commercial elements, in which the Medical Affairs team acts as a key player. Investing in foundational capabilities now, including content planning and technology for efficient modular content creation, review, and dissemination, will allow for personalization and channel orchestration in the future. Subsequently, Medical Affairs will be able to fulfill an increasingly important role within an organization-wide approach to omnichannel HCP engagement.

Introduction

The pharmaceutical industry is striving to deliver an agile, personalized customer experience for healthcare professionals (HCPs), as well as other stakeholders such as patients and payers, bridging the gap between medical and commercial functions. Medical Affairs teams are essential in this process, providing meaningful scientific and medical content tailored to the user's needs.

One driver of this shift is elevated time pressures on HCPs that have been in effect since the onset of the COVID-19 pandemic. In 2023, time pressures on HCPs and subsequent competition for their limited attention are predicted to increase further, according to the Thought Leadership team at IQVIA, as longer-term impacts of the pandemic converge with various economic crises around the globe and apply unprecedented pressures to healthcare systems.[4]

As HCPs are increasingly pressed for time, they are seeking meaningful medical engagement through various channels, including increased MSL video calls, email and chat functions, synchronous and asynchronous continued medical education and events, and written or visual scientific content.[5,6]

A 2023 report by Sermo on HCP content habits and best practices surveyed 899 physicians and found that the most commonly searched health-related topics were medical research or data and treatment information. When searching for medical information, the majority of HCPs consult multiple sources before making a treatment decision.[7]

However, HCPs must select the most relevant content for their needs, and the quantity of scientific and medical data being published is growing rapidly. According to a 2021 white paper from Elsevier, which surveyed 1,778 physicians on their use of online resources, 79 zettabytes of new medical knowledge were produced and used in 2021, almost twice the volume generated in 2019.[8]

The survey asked physicians how they filter and select content to meet their needs and found that the most influential factor globally is the credibility of sources, with 81% of physicians considering it important, followed by up-to-date information and research, as selected by 78% of physicians, and ease of searching or navigation selected by approximately 60% (+/-3%) of physicians.

With a great deal of complex scientific data being released, HCPs are more likely to engage with factual content that is well-presented, creative, and educational. Furthermore, 73% of physicians are more likely to engage with personalized communications. This means organizations that use audience data to serve

4 Sarah Rickman, VP Thought Leadership & Marketing, IQVIA, "Nine for 2023, part one: a reflection on inflection," and "Nine for 2023, part three: thriving or surviving?" Pharmaphorum.com, 2023

5 IQVIA, "Medical Affairs' Next Frontier: Unlocking Omnichannel Engagement," 2023

6 60 seconds, "Pharma's New Frontier: How MSLs can Lead the Way Through Uncertain Times," 2022

7 Sermo, HCP Sentiment Study Part 10, "Insights for 2023 on HCP content habits and best practices," 2022

8 Pharma & Life Sciences Solutions Team, Elsevier, White Paper, "Physicians are online – Here's why," 2022

tailored modular content could win more engagement from HCPs, as they feel that the information is created specifically for them.[7]

A crucial part of pharma providing such content will involve moving away from traditional content creation approaches, which no longer meet the evolving demands and digital preferences of HCPs, moving instead towards agile and dynamic content. Organizations must invest in the right resources and tools for creating modular content at a global level, which can be reused and adapted locally to enable personalization and channel orchestration, allowing Medical Affairs to become an essential part of omnichannel HCP engagement.

Customer journey and experience

HCPs view the organization as one entity, meaning that cross-functional collaboration is vital to providing a customer-centric experience and ensuring that high-quality, rapidly cascaded content forms a balance between medical affairs and commercial. With an increased thirst for peer-to-peer interactions among HCPs, decreased promotional engagement, increased time pressure, and escalating competition for HCP attention, pharma is set to focus more on the quality of HCP interactions, in which the experience is meaningful to the work of treating patients.

The customer journey is something that both commercial and medical affairs functions should understand, according to Paul O'Grady, Global Oncology Scientific Communications and Strategy Head at GSK, who sees an improved balance between non-promotional and promotional interactions as the future. As part of the transition, pharmaceutical companies must unlearn their over-reliance on commercial face-to-face interactions and help medical affairs teams to increase their engagement volumes on multiple fronts.

"Many in the industry are moving towards one customer journey across medical and commercial," says O'Grady. "The customer journey specific to medical affairs is not fulfilled with a commercial mindset, and it's not based on sales data. But doctors want to get information on what is new, treatment options, and how to deal with side effects. That is part of a customer journey."

Photo by Ali Pazani

The evolution of scientific content creation

Producing up-to-date, meaningful, credible medical and scientific content is critical for providing value and securing limited HCP attention when they are open to engagement. The content determines how much attention HCPs will invest and how the value will be perceived, while its presence on preferred channels and ease of access can help boost its reach. HCPs have a vast array of sources to choose from and are most likely to engage with well-presented, creative, and educational content. One example is digital opinion leaders compliantly co-creating, presenting, and sharing medical material on their platforms, which can effectively reach HCPs on social media and build trust.[9]

However, despite HCPs' appetite for and –ideally– greater trust in content created by Medical Affairs, the traditional content creation process can hinder the prompt distribution of information and materials. Creation and review bottlenecks can cause delays in the publication and dissemination of materials. Content created by Medical Affairs is often static, costly to produce, and single-use. Many content components, such as figures, tables, and illustrations, are recreated locally using such tactics as advisory boards, scientific exchanges, publications, or conferences.

According to Brian Falcone, Executive Director for the Americas at Oxford PharmaGenesis, this is true even when content is duplicated and used in a different format, such as a table published within a scientific manuscript and inserted into a slide presentation. "While all the information may be the same, the content is still often developed and reviewed anew with each different application," says Falcone.

Overall, the traditional content creation process in Medical Affairs tends to be inefficient and involves much-duplicated effort. Potential errors may be introduced into duplicative content resulting in inconsistent scientific content across discrete assets that are difficult to maintain and leverage. Falcone explains, "What we don't want to do is rewrite the message in different ways for different audiences, which can confuse the reviewers. [...] We'd rather start from one place and then dial the detail up or down as appropriate. That way, we can still hit all our different communication points using the various vehicles available to us in this age of omnichannel communications while remaining certain that we preserved the message."

9 Reuters Events Pharma and HCG, "The journey to omnichannel in Medical Affairs," 2022

Modular content

Modular content uses pre-approved blocks of content - "modules" - that are used to create Medical assets (such as medical information letters, scientific exchange materials, medical education materials). Modular content can provide an elegant solution to many of these issues. It reduces the duplication of efforts, streamlines the content creation process, cascades consistent information across channels, and reduces the need for numerous, in-depth legal and regulatory reviews. Furthermore, modular content lends itself toward dynamic and scalable adaptation, allowing content to be personalized and giving HCPs the feeling that information was created specifically for them. This can be achieved through further customization based on audience data and packaging modules together in a cumulative way that prioritizes the modules HCPs will most likely be interested in.

"If we're able to be smarter about how we create our content, that gives us some time back that can be used to write another paper or to develop another communication deliverable that will also be created more efficiently. Altogether, we will be able to get more done," explains Falcone.

Content components are created centrally according to a content plan and include key medical statements, graphs, tables, and headlines. Additionally, a list of preferred references can be collated simultaneously. Content components can be combined to create content modules or templates, allowing customized content to be considered. Modules are then submitted for global Medical Legal Regulatory MLR approval and made available for local adaptation through a central repository, being carefully meta-tagged in line with an effective digital asset management (DAM) strategy to enhance searchability. Local Medical Affairs teams and commercial and other functions can be informed of their availability.

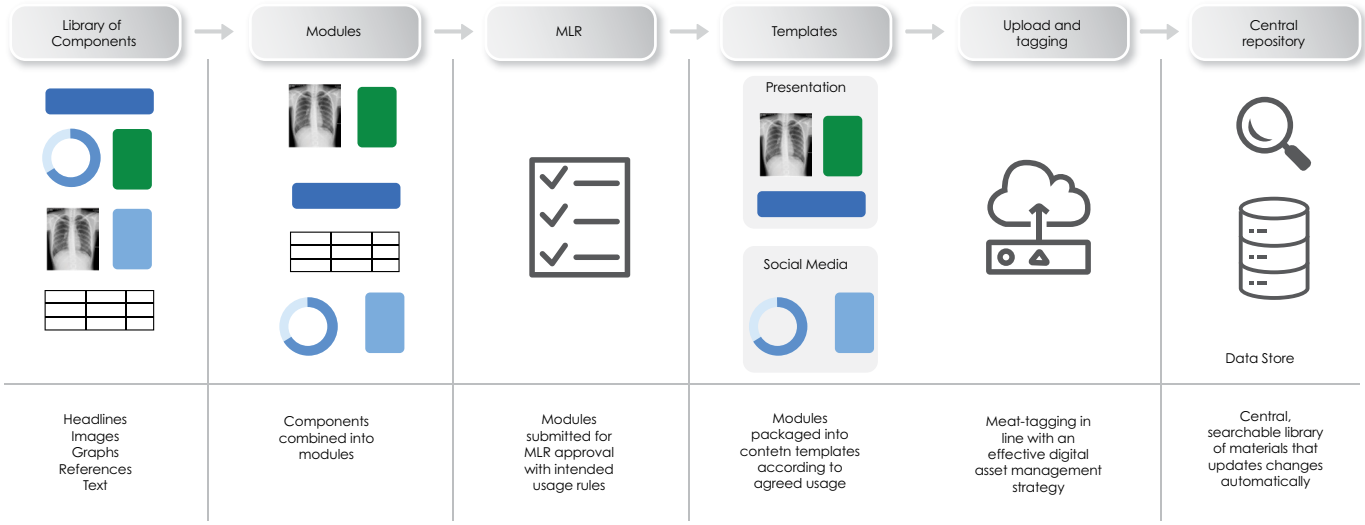

Figure 1. MAPS. Illustration of how modular content is created, approved, and housed. 2023.
MLR: Medical Legal Regulatory

Overcoming challenges

According to a 2022 Indegene survey of Medical Affairs professionals, global content creation is already a core capability of the Medical Affairs function. However, there are multiple unique challenges to overcome when implementing modular content. Due to the highly regulated nature of medical affairs materials, modular content has been seen by some as an unsuitable path to take, particularly regarding a move toward omnichannel engagement.

Nevertheless, seamless omnichannel customer engagement has been achieved in other highly regulated industries, such as financial services, giving customers real-time access to product information and functionality using coordinated channels, including apps, SMS messages, websites, and chat support.

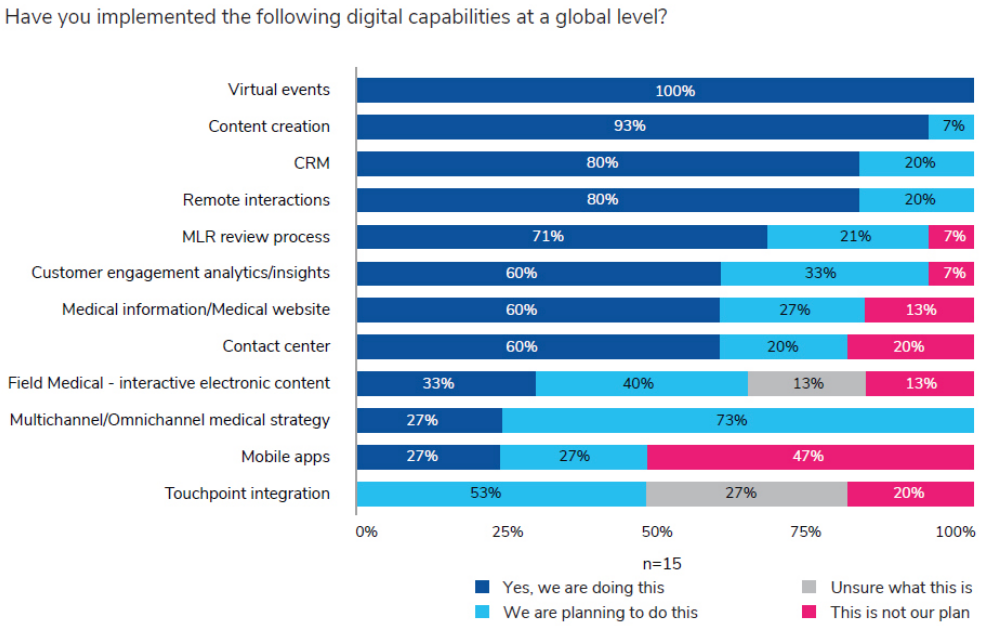

Figure 2. Indegene medical affairs digital strategy council. Aspiration vs. actuality: Assessing the progress of digital excellence in Medical Affairs. 2021.

Challenges to using modular medical content in an omnichannel setting include regional regulatory requirements and potential copyright issues. Regarding resources, the pandemic led to an increased willingness to invest in virtual engagement. In the post-pandemic era, many organizations' budgets have decreased, and it can be challenging to obtain the resources needed, leading to competition between functions.

Nonetheless, the pharmaceutical industry is making great strides toward authentic, customer-centric omnichannel HCP engagement, and modular content is a crucial component. Marketing and commercial functions are often more advanced in their omnichannel and modular content capabilities, but in some organizations, medical affairs are gaining ground and even leading the way.

Case study: Medical information leads organizations into modular content

Eli Lilly's medical affairs team led the organization into modular content development.

Modular content development at Eli Lilly began when the medical team was faced with a critical business challenge of increasing content throughput without the option of increasing resources.

"We had multiple, imminent product launches coming, and we knew we needed to generate a lot of content in the years to come," says Cecil Lee, Content Strategy Senior Director of Content Intelligence at Eli Lilly, "The question was 'How do we create content in a way that's super-efficient, both generating new content and updating information at the same time?' Adding more people just wasn't feasible. The only option was to increase the productivity and efficiency of generating content."

Lee explored various content creation strategies that would create a more efficient system of generating and using content. By looking to other industries, such as banking and tech, Lee was able to leverage existing techniques and apply them through a concept known as Create Once Reuse Everywhere (CORE) to reduce duplication of effort when creating content. CORE was initially applied to medical information before being rolled out more broadly to other medical affairs materials and is now also being implemented on the commercial side of the business.

According to Lee, modular content models start with a change in mindset and mature with time and experience. "You may say that when we first started adopting a modular content model, a preliminary step was to think about content differently," says Lee. In the beginning, CORE content was reverse-engineered, breaking down finished content into smaller pieces referred to by Lee as "Lego pieces" and rebuilding them formulaically.

"It was very much an exercise of standardizing the Lego pieces at the start," says Lee, who has seen the maturity of the model advance with closer levels of collaboration between medical affairs and commercial functions. "Standardization is better connected, allowing content to be built up and increasing its reuse. We are also empowering the content with data so that we can measure aspects of content creation efficiency, like speed to market, as well as the effectiveness of the content."

Eli Lilly implemented CORE principles before omnichannel engagement became an ambition, according to Jennifer Riggins, a medical affairs consultant formerly at Eli Lilly. "Lilly is unique from a lot of companies in that they've used modular content in medical information for about six or seven years now," says Riggins.

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The organization knew the advantage modular content would bring them when plans to implement omnichannel HCP engagement emerged. "To get full omnichannel implementation, you need modular content across the board. So, our commercial colleagues are doing that implementation now," says Riggins.

Information modules can vary in length and complexity depending on the need and purpose. "A module might be one or three sentences long, whatever it needs to be. The component can then be used in a chatbot dialogue, in a scientific response document, on social media, etc. You name the channel, we can reuse components in it," says Riggins.

The CORE model continues to mature and is now in a phase where the content lifecycle is being examined. "Additional uses from a medical perspective are being examined as the omnichannel strategy is being implemented and refined," says Riggins.

Modular content creation could be moved upstream and applied to publications and abstracts—potentially starting as early as the draft launch label and as late as post-marketing authorization content.

Lee likens medical content flow within pharmaceutical organizations to that of a river, where the source is a scientific manuscript published in a journal. "Publication information is also being reused downstream, by medical affairs, in the sense of medical information. Our call centers can use such content when answering product questions, and the commercial side needs to substantiate claims and provide references. Why would we reinvent the wheel if we can flow things through?"

Creating and deploying modular content

The journey toward effective modular content starts with an informed content strategy guided by data and insights, which allow for the development of global modules and templates. Content can be reviewed, approved, and stored within a central repository where it can be organized, tracked, and managed.

Content Creation and Optimization

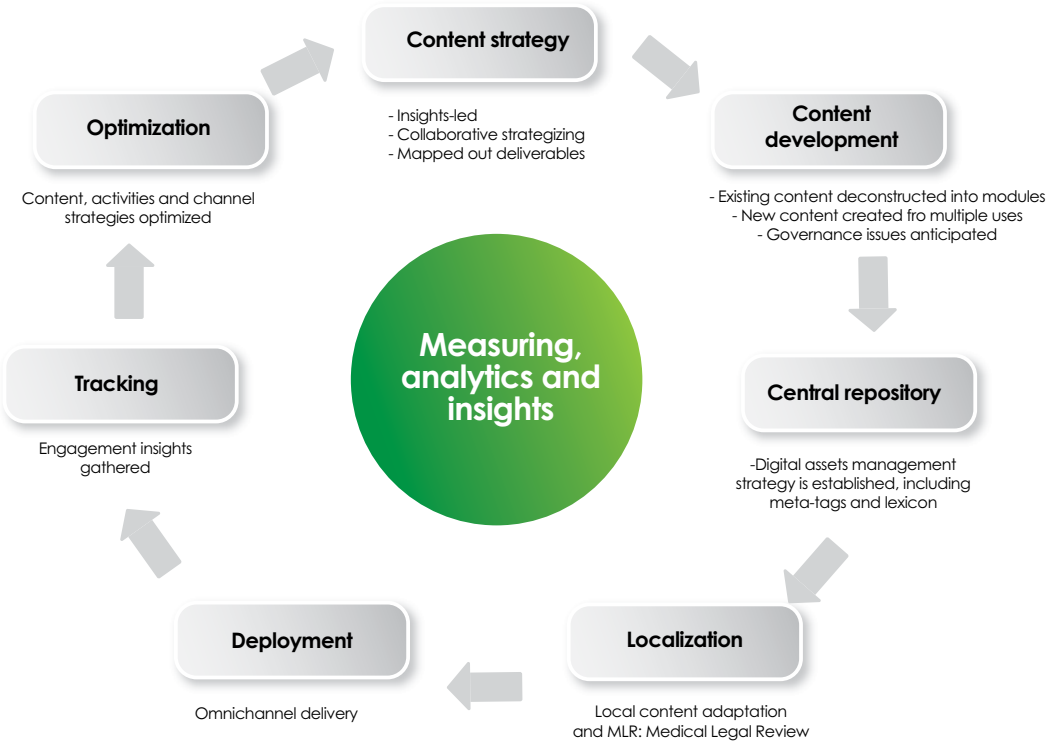

Figure 3. MAPS. The content creation, deployment, measuring and optimization process. 2023.

Content strategy

Data-led content strategy

To enhance the chance of success, a modular content plan should be steered by insights developed from available data, such as HCP needs and usage. However, with abundant data sources available and many housed in separate technology systems, selecting which sources to utilize and understanding how to effectively analyze them should be decided in advance. Relevant stakeholders should be brought together to determine which data sources are best, along with the most insightful analyses that can be performed.

"The medical content plan is built around the data," says Sissy Easo-Joseph, Director of Global Scientific Communications for Antibiotic Portfolios at GSK. Content, avenues, and communication channels should be determined based on the most relevant data and insights, according to Easo-Joseph, underlining that it is vital to understand what data is available and how to use it. "What data do we have? And how are we going to disseminate that data, and to whom? Knowing that upfront is important so that we work with all our stakeholders. We sit together to map out what our data sources look like."

The plan should identify the deliverables needed and the critical content components within them. However, rather than being a static document that is created and "applied," content plans should be maintained as dynamic documents and updated regularly as insights are generated from incoming data.

Collaborative strategizing

A collaborative effort between all relevant stakeholders is essential when developing a content strategy to ensure consistency within the narrative. Stakeholders might include representatives from global or regional medical affairs teams, legal, regulatory, clinical, medical information, marketing and commercial, clinical teams, statisticians, and real-world evidence teams.

Collaborative approaches help with insight management and dissemination. "Working with the collaborative group, we can ask, 'Where do we put this?' All of the content is built on our platform, along with our medical story, allowing us to enhance our narrative," says Easo-Joseph.

Mapping out deliverables

When planning modular content for multichannel or omnichannel engagement, mapping out deliverables and aligning content plans with various channels or touch points on the customer journey can help teams optimize efforts and resources. A content plan can be efficiently developed by asking simple questions, such as who the target audience is and whether the number of items being developed can be reduced by repurposing or updating existing materials. Another practical approach would be to utilize relevant sections of master slide decks from pre- or post-conferences and events.

"The cross-functional team comes together for an annual integrated medical communications strategy workshop where we review competitive intelligence insights, gaps from landscape analysis and literature reviews, insights from physician engagements and medical inquiries to identify gaps and match those to communication tactics and evidence generation plans," says Avishek Pal, Global Medical Director of Cell & Gene Therapy at Novartis. "It used to be a publication planning workshop, but now we have expanded it

to include all the different channels we use; it made the workshop more relevant. Medical education content is a key element of the tactical plans derived from these workshops. And we discuss which kind of medical education content we are going to develop out of the publications, including digital and plain language enhancements."

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Case study: Collaboration Medical affairs at Astellas is collaborating with commercial to build a seamless customer experience

Currently, Astellas is implementing an integrated medical communications strategy to move away from ad hoc content creation and toward a coordinated working model of omnichannel engagement by expanding upon current strengths, such as publication planning.

"We are on the journey of strengthening our content strategy," says Marleen van der Voort, Executive Director of Scientific Content & Insights, Global Medical Affairs at Astellas. "We have robust publication plans and are implementing similarly robust content strategies so that we develop an integrated Medcomms strategy that will not only drive our publication planning but will also drive our central content planning as well as our medical education strategies."

Astellas is looking toward a collaborative working model both within and without the function, working closely with commercial teams to ensure efficiency and provide a seamless customer experience for HCPs. "We're looking at an integrated way of working that breaks down some of the silos that currently exist within our organization so that we're working as efficiently as we can and also making sure that we're fully aligned," says van der Voort.

"We are engaging with commercial at the moment to see how we can integrate segmentation [of customers] across both functions," says van der Voort. "If we want a seamless journey for the HCP, medical affairs and commercial need to make sure that engagement is enterprise-wide, as appropriate, because it's only one company in the eyes of our customer."

Anticipate content governance

Modular content helps prevent the duplication of efforts within the content creation and review processes, with the aim that materials are reused. To make this happen, the legal and regulatory review processes of respective organizations may need to be examined, according to Margaret D'Ambrosia, Senior Director of Healthcare Compliance for US Medical Affairs at Astellas and co-chair of the MAPS Compliance Area Working Group, who has noticed an industry trend towards streamlining such review processes.

"When compliance, legal, and regulatory functions review content, there is always a consideration of the audience and the method of distribution. How you distribute something and to whom matters," says D'Ambrosia. "You may be able to distribute different types of content to different audiences, but that can differ based on geography and your company's policies and procedures."

To stay abreast of such issues, D'Ambrosia suggests bringing compliance, legal, and regulatory partners to the table early during strategic and content planning stages to outline specific considerations and approaches to tackle them. "If we can get to a place where we are looking at materials with an omnichannel view, we can develop more streamlined processes where we can avoid re-reviewing material A again for purpose B, and later for purpose C," says D'Ambrosia. "Help your compliance, legal and regulatory colleagues holistically understand what you want to do with the material. It may be multiple channels, and it may be multiple types of audiences." This approach enables compliance legal and regulatory teams to consider what approach to take upfront and how to adapt their processes and review materials through an omnichannel lens.

D'Ambrosia describes how conversations around reusing materials for multiple channels are becoming more common. "Our industry is really starting to look at ways to utilize the same content across different channels, such as social media, and with different audiences," says D'Ambrosia. "There is still a lot of discussion around what a truly omnichannel approach looks like and what processes are needed in order to be able to do it effectively and efficiently."

Content development

Approaches to content development vary but tend to involve two main methods. The first method is deconstructing existing content and identifying common elements, themes, and structures. The second method is constructing new content with the expressed intention of multiple uses.

Deconstructing past content or data is a common and convenient starting point. Starting with a narrow focus, such as modularizing past medical information, can allow for quick and practical gains. Disclaimers, content openers, closers, and summary structures may all be repeated frequently and can be created as pieces of modular content to place within a template.

"Initially, Lilly took a lot of their old [medical information] content and worked with a vendor partner and identified the content that was repeated over and over again," says Riggins. "It was an easy way to pull out items that could be reused and created in a modular component."

"Looking at the bigger picture can help one to think about content differently," says Riggins. "For example, we know we have a clinical trial that has results now. We want to map out all the deliverables needed and required for that piece of content, such as an MSL slide deck, a medical education piece, a particular medical information response, publications, abstracts, and posters. Then, we can ask ourselves, what are the key content pieces that belong in those deliverables? Can they be modularized? If so, then follow the CORE principle: create once and reuse in all of the appropriate deliverables."

	Stakeholders	Reuse	Global
Use standard terminology and editorial style	Readers can understand content consistently. It is better for brand identity.	Standardized terminology enables modular content to fit together and flow seamlessly. It reduces ambiguity.	Translation costs are per word. Standardization lowers costs and improves accuracy.
Avoid jargon	Readers respond positively when they understand the content.	Simple, straightforward content has more potential for reuse.	Idioms and jargon should be avoided for ease of adaptation, as they usually translate poorly.
Reduce sentence complexity	Readers appreciate brevity and simplicity.	Short, clear sentences can assemble into longer works and are easier to understand.	Short, clear sentences are easier to understand for non-native speakers.
Remove embedded text from illustrations.	Readers want visuals to give an "at-a-glance" understanding. Too much text undermines this.	Illustrations without text can be reused more easily.	Separating the text from the illustration makes it easier and faster to translate.

Table 1. Val Swisher. 6 Best Practices for Creating Reusable Global Content. 2021.

Creating new modular content from scratch can involve more of a mindset shift and the development or adaptation of skills. "Honestly, it's tough to write in a modular way," says Riggins. "We're not used to writing that way. We're not used to thinking in very distinct sound bites. And that's what has to be done with modular content."

Best practices for creating reusable global content include using standardized terminology, consistent grammar and style, reducing sentence length and complexity, and removing unsightly or confusing details from illustrations, such as unnecessary text or data labels.

Case study: Modular thinking

GSK is embracing a creative modular mindset

While some pharma organizations have yet to begin the journey toward omnichannel engagement, others have made significant advances. "Medical affairs [at GSK] is just getting to a point where we have coordinated channels where we are looking at speed to customer engagement and adaptability," says Paul O'Grady of GSK. "We need to define what modular content is for us."

"Most of us in medical are using commercial technology for the review and approval of materials within it," says O'Grady. "But how you execute that and how it goes out into the world is based on the partnership within your organization for your content generation team, your tech team, and also your home office and field team. This depends on what the medical, modular content is and whether it is something being used by an MSL or a digital channel."

Implementing modular content involves different people with different roles and responsibilities. "In all this multichannel, omnichannel evolution, we have to realize there are more stakeholders now at the table," says O'Grady. "Medical affairs is more complicated, and we have to bring people in early and go along the journey together. Otherwise, you're generating content that doesn't get out the door."

Embracing brevity

A key challenge for creating modular content is to be brief while also communicating a sufficient amount of information to adhere to regulations and provide access to necessary resources or references. "Modular content is about embracing new ways of thinking, embracing brevity where appropriate, and trying to work out how to get speed into the system," says O'Grady.

According to O'Grady, modular content is well-defined within pharma and other industries for detailing campaigns produced by commercial. However, unique obstacles exist for medical affairs content, such as local regulations regarding content and channels. "When you're dealing with medical, you've got to think, what are your rules in your country? Are you allowed to be reactive, or are you allowed to be proactive? Do you need an unsolicited [regulatory review] request?"

Technology

The technology stack needed to effectively employ modular content depends on the capabilities sought. For example, using modular content as part of omnichannel HCP engagement necessitates technologies that marry content with data and automation to power, coordinate, and measure channels and content. Teams moving toward using modular content for distributing content on different channels may choose technologies that allow for seamless omnichannel capabilities to be added in the future. On the other hand, teams just getting started with modular medical content may only aim to improve the accuracy and efficiency of the content development process and look for technologies to help create, house, and retrieve modular content effectively.

Content development platform

There is currently no integrated development platform that meets the broad Medical Affairs need for creating modular content for assets, such as medical information letters, scientific exchange materials, and medical education materials, but the aspiration exists and is gathering momentum. Current modular content platforms tend to be oriented toward the needs of commercial and marketing teams and are focused on commercial elements, such as advertising banners and logos. However, solution providers are now seeking to fill this gap in the market, as more medical affairs teams are asking for bespoke technology tailored to scientific content.

One problem is that scientific materials tend to be more complex, which can cause stakeholders to focus on obstacles and barriers rather than on solutions and the business case behind the need. “We sought consultancy advice and started to invest. We didn’t have many legacy systems, so we were able to start our strategy with a clean sheet,” says van der Voort of Astellas, who explains that their team witnessed how commercial teams approach modular content and omnichannel engagement.

“We realized that it didn’t make sense if we didn’t do the same thing. That’s when we started to have conversations with [service providers],” says van der Voort, who initially did not consider modular content relevant for medical affairs; however, more recent conversations with the service provider had revealed numerous customers asking for a similar solution.

Central repository for effective digital asset management

A central, searchable content repository can help teams manage global, regional, and local assets, known as digital asset management and sometimes referred to as DAM. Effective digital asset management enables processes to be automated and reduces manual tasks. An organized system is key for depositing, retrieving, and utilizing content efficiently, and automated alerts can signal when materials need to be updated. Following updates, changes can be cascaded through all relevant materials.

Metadata[10] and taxonomy[11] play a crucial role in defining and sorting data within the central repository and are core components of DAM. If implemented effectively, DAM can help teams better utilize modular content, serving as a foundation for the technology stack needed to power omnichannel HCP engagement. However, teams should realize that DAM is a constantly evolving work in progress, requiring regular updates and maintenance of organizational systems to stay current.

Careful consideration should be given in advance to the organizational system before it is applied. "One major lesson learned was to strategize first," says van der Voort. "We came from regional systems. Large regional affiliates had their own systems with their own taxonomy. And it needed to have a lot of negotiation to standardize it."

Having a well-defined metadata and taxonomy scheme tailored toward the therapy area, for example, can make it easier for users to find and use the data they need, and without a comprehensive metadata system, it would prove difficult to effectively manage and access data. Van der Voort points out that if a medical affairs team has the ambition to be capable of omnichannel engagement in the future, the repository should be configured accordingly.

"We were in a position of making decisions around the configuration and the setup and the scope of the system when we didn't have an omnichannel vision or strategy or central content strategy. We designed the system and the scope of the project on our semi-decentralized model," says van der Voort. "During configuration, we established an omnichannel vision, a central content strategy. So, lesson learned there." Transitioning from a legacy system, such as a shared drive with files stored in folders (or perhaps two or more separate systems used by different functions or teams within an organization), to a single, central repository can take a great deal of time and investment platform to complete. Larger companies can comprise historically separate organizations, according to Paul O'Grady of GSK.

"Ideally, there should be one digital asset management repository for medical where people can go in and find materials to be used across markets," says O'Grady. "But often, larger companies have issues with that because of instances of different resources being housed historically within different functions within the organization. But really, you need to get to one shared solution."

Theoretically, points out O'Grady, country users could enter repositories and "self-serve" to select what they need. "That way, we can reuse material either across channels or across markets. And with that comes economies of scale," says O'Grady.

10 Metadata is data that helps define and identify the contents of an asset. It can include descriptive elements, such as titles and keywords; structural information, like file size and type; and administrative information, like compliance and rights management.

11 Taxonomy is a system of classifying data into logical groups or classes so that similar information is easy to locate. A well-structured taxonomy helps users find what they need quickly and easily.

When organizing the taxonomy of content within a central repository, it is best to create categories that make sense to users and create a structure broad enough to contain the content but not too deep that it is difficult to find. "There's always the balance you need to have around standardization and granularity," says van der Voort. "We have a lot of standard fields; type of material, source, geographical scope, use and that sort of thing. We're now looking at building in additional fields that will allow us to get an Amazon-like content store, where you can put in filters and easily find what you're looking for."

Meta-tagging, keywords, or search terms are approached differently within each organization, but they have the same end goal of improving intuitive retrievability, consistency, and efficiency. Before developing a metadata strategy, it is important to consider the business's needs, who will use the repository, and what information is essential to include.

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Case study: Meta-tagging modular content for cell and gene materials

Novartis uses an intelligent platform to enhance the retrievability of materials

The Cell & Gene Therapy team at Novartis is employing a modular content strategy to improve efficiency in content creation and reduce duplication of efforts. One key part of the approach involves effective meta-tagging to make materials easier to find and reuse.

According to Avishek Pal, an effective modular content system must consider how the approved materials are housed and meta-tagged to allow them to be found and reused. "Having an all-in-one central global MLR approval platform and repository where everything sits tagged, searchable, and easy to access helps keep the internal communication flow going for people to know what kind of resources are available," says Pal. "People can go in and download modules or materials they are looking for or add new approved items to the library. The resources are always in a standard format, with compliance-approved designs and colors. They have the right disclaimers, and they are easy to find once they go through the approval process, and we notify the local countries that the material is now ready for use."

Uploading content to a central repository can be time-consuming but necessary, as outdated models, such as email sharing, are ineffective. "People are not able to find what they're looking for if we share materials by sending out emails with attachments," warns Pal. "Meta-tags on the central repository allow cross-functional teams to keep the connectivity and flow of information going."

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Pal explains that meta-tagging is a pragmatic and essential factor in users' ability to find and use modular content on a repository. "We have a huge list of terms for competitor tracking, congress session tracking, and literature reviews. We simply created a truncated list, optimized for cell & gene, and that list is the master list of meta-tags," explains Pal. "That brings down the effort of meta-tagging and thinking through which terms to tag significantly every time we upload a new resource." Additionally, a central repository can bring the benefits of automation and reduce administrative and legal review burdens. "The system suggests a list of approvers, triggers the renewal dates [of resources] so that then allows us to keep track of when materials are becoming outdated and need to be updated. This is super helpful when planning congresses and medical events," says Pal.

Measuring impact and value

Gaining buy-in within an organization for implementing modular content or investing in necessary technologies can be achieved by presenting a business case for the value delivered and the positive impact expected. Hypothetical models in advance of having a use case or pilot study data could be based on predicting reduced costs, improved content throughput speeds, and improved personalization of HCP experiences using past data. Following implementation, key performance indicators for demonstrating the impact and value of modular content could follow these hypothetical models to prove the benefits delivered.

According to Cecil Lee at Eli Lilly, much of demonstrating the value of modular content comes down to efficiency and productivity measures like speed to market, the quantity of content throughput and the number of rounds of medical and legal reviews needed. "How fast can you get your content through review and approval? Also, how often has content been reused?" asks Lee, explaining that reuse metrics are a key component to Eli Lilly's CORE (NB Create Once Reuse Everywhere) system. Other examples include reduced costs for content creation due to content reuse, including reduced use of internal resources and less outsourcing to vendors.

Beyond these metrics, however, are measures that can show how effective content is at achieving its purpose of engaging stakeholders. "While efficiency measures are fantastic, the end goal is to build content that is actually effective in the market," says Lee. "These metrics are a much more complex field, showing how well we're targeting content. The ultimate aim is to build a library and inventory of modular content that is effective in the market, and that's what we want to measure on." Metrics might include personalization measures, increased engagement, satisfaction, and trust due to more scientific, relevant content.

Conclusion

The pharmaceutical industry is changing the way it interacts with HCPs. The goal is to create a seamless customer experience with minimal separation between medical and commercial aspects. Medical affairs teams will play a crucial role in this transformation and are looking to meet increasing HCP demands for meaningful scientific and medical content that meets HCP needs.

A foundational part of achieving this will be improving modular content development to make processes more efficient and cost-effective. To make this possible, organizations must invest in the right resources, such as content planning and technology, to facilitate modular content creation, review, and distribution. This will enable personalization and channel orchestration in the future, allowing medical affairs to step up and become an integral part of omnichannel HCP engagement.

Modular medical and scientific content produced at a global level has the potential to be reused and adapted, reducing resource-intensive duplication of efforts and improving consistency when compared with traditional content production processes, which are usually single-use and created locally. However, regional compliance and copyright issues need to be considered in advance for this to happen.

Another crucial part of the journey toward the effective deployment of modular content is an understanding of the core concepts of DAM. A well-organized central repository using consistent, standardized metadata and taxonomy can help, both within the context of developing omnichannel engagement capabilities and in terms of enabling teams to find and reuse materials. Additionally, systems and processes that keep collaborative teams informed of the availability and status of global materials are essential for ensuring that the content produced is deployed effectively.

Thanks

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About the Medical Affairs Professional Society

The mission of the Medical Affairs Professional Society (MAPS) is to advance the Medical Affairs profession and increase its impact across the biopharmaceutical and device industry. We do this by promoting excellence across Medical Affairs functions, developing guidelines to support industry standards and best practices, fostering advocacy for the Medical Affairs profession and building capabilities to provide a platform that supports the practice of Medical Affairs.

About the Medical Communication Focus Area Working Group at MAPS

The objectives of the MAPS Medical Communications Focus Area Working Group (FAWG) are to create a community that advances our role as fully integrated strategic business partners to promote the growth of Medical Affairs Professionals within the Medical Communications sector worldwide, to develop our Medical Communications community within MAPS to become the premier global destination of choice for Medical Communications MA Professionals, and to catalyze our individual personal leadership development and professional career advancement.

"To join MAPS, access additional Medical Affairs resources, and learn about upcoming events and trainings, visit medicalaffairs.org

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